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THE FECUNDITY OF THE NATIVE AND
FOREIGN BORN POPULATION IN
MASSACHUSETTS.

I.

MARRIAGE-RATES AND CONJUGAL CONDITION.

THE small fecundity of the native and foreign born population in Massachusetts is a problem which of late years has attracted the attention of both official and private statisticians in the United States.* It has also been discussed in Europe, and especially in France,† which country, by reason of its own small propagation, makes in its demological studies, a specialty of the general subject of human fecundity. In view of this, any further treatment of the subject may seem superfluous. But a study of the literature in question shows that the material per-

* Cf., for instance, Samuel W. Abbott, "Vital Statistics of Massachusetts. A Forty Years' Summary," *Twenty-eighth Annual Report of the State Board of Health of Massachusetts*, pp. 711-829.

† Arsène Dumont, "Essai sur la natalité en Massachusetts," *Journal de la société statistique de Paris*, 1897, pp. 332-353, 385-395; 1898, pp. 64-69.

taining to the subject and gathered in the official statistical publications—*i.e.*, in the census volumes and registration reports—is far from being exhausted, and that the question has not yet been taken up with a sufficient regard for the elements of statistical method. While the following investigation, then, claims to cover a wider field than its predecessors, its scope may be defined at the start. In regard to nativity, it will entirely ignore the parentage of the native and foreign born population. Local and social divisions, such as single counties, various agglomeration groups, different classes of occupations, will not be considered. The reasons for this restriction are that the data as published give but a fragmentary insight into these details, and that even a partial consideration would unduly extend the scope of this paper. As regards time, in order that only fairly reliable data may be used, it being of course necessary to pay particular attention to the statistics of births, only those records will be analyzed which were issued after the “act to compel a more accurate registration of births,” approved February 26, 1880, could have become effective.* The present study will begin, then, with a short review of the population in Massachusetts according to nativity and place of birth, then treat the marriages and the conjugal condition of the population, then, as a consequence of these, the births, and the number of children born to every mother. In the pages following a short glance will be taken at the mortality and the number of children surviving for every mother. Finally, some conclusions will be drawn about the propagation of the population.

*The system of registration introduced in the Colony of Massachusetts Bay in 1639-44 prevailed until 1880. Under this system, knowledge of the births was secured by the duty imposed on the householders to give notice to the town clerk of the births occurring in their family. (*Cf.* my paper, “The Registration Laws in the Colonies of Massachusetts Bay and New Plymouth,” in *Quarterly Publications of the American Statistical Association*, September, 1900.) The Act of 1880 provided that the reports be made by the physicians and midwives, and secured thus more complete returns than were obtained before.

I. THE POPULATION.

It may be stated at the outset that the distinction between native and foreign born population by no means refers to any race difference. The population of Massachusetts, having, like that of every state in the Union, grown partly by immigration, the term "native population" is but a relative one, including, as it does, those persons born in Massachusetts whose parents came from a foreign country. With this understanding of the term a statement of the two classes of population in Massachusetts will now be introduced.

Table I. gives the native and foreign born population of Massachusetts by sex for the three censuses of 1885, 1890, and 1895. It would be easy to follow both populations farther back; but, owing to the above-mentioned restriction in regard to vital statistics, they would not be of use in this connection.

TABLE I.
POPULATION BY SEX AND NATIVITY, 1885, 1890, 1895.

NATIVITY.	1885*		1890†		1895‡	
	Males.	Females.	Males.	Females.	Males.	Females.
Native . .	688,284	726,990	773,853	807,953	848,312	886,941
Foreign .	244,600	282,267	313,856	343,281	366,389	398,541
State. . .	932,884	1,009,257	1,087,709	1,151,234	1,214,701	1,285,482

Table II. shows the population by sex and country of birth at the two censuses of 1885 and 1895. The figures

* *Census of Massachusetts*, 1885, vol. i., part 1, p. lv (hereafter referred to as *Census of 1885*).

† *Report on Population of the United States at the Eleventh Census 1890*, part 1, p. 486 (hereafter referred to as *Census of 1890*).

‡ *Census of Massachusetts*, 1895, vol. ii. p. 225 (hereafter referred to as *Census of 1895*).

are given for the population born in Massachusetts, in the other five New England states, in the other states and territories of the Union, and for every foreign country which in 1885 had more than 4,000 inhabitants in Massachusetts; *i.e.*, more than one-fifth per cent. of the entire population of the state. This division agrees with that observed in the few published tables of vital statistics given separately for the different countries of birth. It was not possible to give the same figures for 1890, as the Federal census does not give the data separately for the sexes.

TABLE II.

POPULATION BY SEX AND COUNTRY OF BIRTH, 1885, 1895.

COUNTRY OF BIRTH.	1885*		1895†	
	Males.	Females.	Males.	Females.
Massachusetts	548,556	568,884	671,444	694,544
Other New England states	101,821	114,904	118,659	129,772
Other states	37,907	43,202	58,209	62,625
English Canada	6,993	8,866	26,385	29,076
French Canada	32,621	31,882	55,271	54,492
Nova Scotia	17,346	23,493	20,804	27,821
Prince Edward Island . .	2,677	4,132	3,613	5,732
New Brunswick	6,662	9,787	8,709	11,829
England	29,150	27,774	41,613	40,357
Scotland	7,944	8,026	12,074	12,480
Ireland	105,757	138,872	110,626	147,621
Germany	12,757	10,358	16,653	14,498
Sweden	4,844	4,592	14,651	13,890
Portugal	3,431	2,687	7,318	5,980
Other countries	14,418	11,798	48,672	34,765

Table III. gives the total native and foreign born population shown by the three censuses of 1885, 1890, and 1895, the proportion of the native and foreign born at the three enumerations, and the increase of both classes and

* Calculated from *Census of 1885*, vol. i., part 1, p. 574.† Calculated from *Census of 1895*, vol. ii. pp. 704-707.

of the entire population in the periods between the censuses.*

The increase of the natives as well as that of the foreign born was larger from 1885 to 1890 than from 1890 to 1895. The natives show in both periods a smaller increase than the foreign born, the first being for the decennial period 22.6 per cent., the second 45.2 per cent., or exactly twice as much; while the increase for the entire population of the state was 28.7 per cent. The proportion which the foreign born make of the total population shows a corresponding increase from census to census, the proportions being 27.1 per cent. in 1885, 29.4 in 1890, and 30.6 in 1895.

Table IV. gives as far as possible the same figures for the different countries of birth. The data given for 1890 are defective, because the subdivision made in the federal census does not agree with that observed in the state censuses.

Among the different countries of birth, the population born in English Canada had the largest increase in the decennial period, the population in 1895 being three and one-half times as large as in 1885 (increase, 250 per cent.). The population born in the countries not specified and in Sweden also underwent a very high increase, the population of both groups being in 1895 more than three times as large as that in 1885 (increase, 218 and 202 per cent., respectively). Portugal was the only state besides these three which showed in its population living in Massachusetts an increase larger than 100 per cent. (117). The increase was less than for the total population of the state (29 per cent.) in the case of persons born in New Brunswick (25), Massachusetts (22), Nova Scotia (19), the

* The increase rates in the following tables will of course show only the changes in the relative importance of the different classes of nativity from census to census. They do by no means indicate the real increase between the censuses, since all the children born in the state between any two censuses and surviving at the latter one are counted among the natives of Massachusetts.

TABLE III.
POPULATION BY NATIVITY, 1885, 1890, 1895. INCREASE, PROPORTION.

NATIVITY.	Total population.			Increase in per cent.			Proportion.		
	1885	1890	1895	1885-90	1890-95	1885-95	1885	1890	1895
Native	1,415,274	1,581,806	1,735,253	11.8	9.7	22.6	72.87	70.65	69.41
Foreign	526,867	657,137	764,930	24.7	16.4	45.2	27.13	29.35	30.59
State	1,942,141	2,238,943	2,500,183	15.3	11.7	28.7	100.00	100.00	100.00

TABLE IV.

POPULATION BY COUNTRY OF BIRTH, 1885, 1890, 1895. INCREASE, PROPORTION.

COUNTRY OF BIRTH.	Total population.			Increase in per cent.			Proportion.	
	1885*	1890†	1895‡	1885-90	1890-95	1885-95	1885	1890
Massachusetts	1,117,440	1,256,408	1,365,988	12.4	8.7	22.2	57.54	56.12
Other New England states . .	216,725	225,573	248,431	4.1	10.1	14.6	11.16	10.07
Other states	81,109	99,825	120,834	23.1	21.0	49.0	4.17	4.46
English Canada	15,859	—	55,461	—	—	249.7	.82	—
French Canada	64,503	—	109,763	—	—	70.2	3.32	—
Nova Scotia	40,839	—	48,625	—	—	19.1	2.10	—
Prince Edward Island	6,809	—	9,345	—	—	37.2	.35	—
New Brunswick	16,449	—	20,538	—	—	24.9	.85	—
England	56,924	76,400	81,970	34.2	7.3	44.0	2.93	3.41
Scotland	15,970	21,909	24,554	37.2	12.1	53.8	.82	.98
Ireland	244,629	259,902	258,247	6.2	— .6	5.6	12.60	11.61
Germany	23,115	28,034	31,151	21.3	11.1	34.8	1.19	1.25
Sweden	9,436	18,624	28,541	97.4	53.2	202.5	.49	.83
Portugal	6,118	8,024	13,298	31.2	65.7	117.4	.31	.36
Other countries	26,216	—	83,437	—	—	218.3	1.35	—

* Cf. p. 4, note 1.

† Census of 1890, part 1, pp. 606-609.

‡ Cf. p. 4, note 2.

other New England states (15), and especially of those born in Ireland (6).

At the three censuses the population born in Massachusetts amounted to more than one-half of the population of the state, the proportion decreasing from 57.5 per cent. in 1885 to 56.1 in 1890 and 54.6 in 1895. The second group in importance was Ireland, which in 1885 had more than one-eighth of the whole population (12.6 per cent.), while in 1895 it had not much more than one-tenth (10.3 per cent.). The third group was formed by the other New England states, which in the same way show a steady relative decrease from one-ninth in 1885 (11.2 per cent.) to one-tenth in 1895 (9.9 per cent.). These three groups contained in 1885 more than four-fifths of the entire population (81.3 per cent.), while in 1895 their share was slightly less than three-fourths (74.9 per cent.). As every other group had at each of the three censuses less than 5 per cent. of the entire population, we shall not dwell further on their respective proportions.

II. NUPTIALITY.

1. *Marriages.*

In every country, and especially in a state like Massachusetts where, as will be seen later, the number of children born out of wedlock is but small, the marriages exert the greatest influence upon the births. The way to calculate the intensity of marriages is to compute marriage-rates; *i.e.*, to compare the number of marriages with the population. There are different ways of computing marriage-rates. The official statistics of Massachusetts use two: they compare the marriages occurring in the year the census was taken with the results of the census. Or they compare the marriages of every year with an estimated population for the same years, distributing the increase between two censuses in an arithmetical or in a geometrical progression. Both

methods have their weak points. The first, while theoretically correct, is open to the objection that annual variations may affect the conclusiveness of the results. The second is more or less arbitrary, since the increase of population is neither absolutely nor relatively the same in the single years lying between two censuses. Both errors seem to be avoided by comparing the annual average of the marriages of every five years next the census with the population found at the census. As the following study will embrace only the period after the law of 1880 could become effective, only those marriages will be treated which occurred in the years 1883 to 1897 inclusive.

Table V. gives the marriages for the fifteen years and for the three quinquennial periods.

TABLE V.
MARRIAGES BY NATIVITY, 1883-97.*

Year.	Couples.	American.	Foreign.	Am. males. For. females.	For. males. Am. females.	Unknown.
1883	18,794	10,002	4,754	1,818	1,610	10
1884	17,333	9,167	4,743	1,881	1,539	3
1885	17,052	9,073	4,526	1,882	1,565	6
1886	18,018	9,272	5,028	2,014	1,700	4
1887	19,533	9,738	5,669	2,256	1,867	3
1888	19,739	9,481	6,043	2,298	1,908	9
1889	20,397	9,574	6,418	2,471	1,931	3
1890	20,838	9,607	6,564	2,494	2,158	15
1891	21,675	9,943	7,018	2,504	2,201	9
1892	22,507	10,032	7,647	2,558	2,269	1
1893	22,814	10,029	7,869	2,635	2,274	7
1894	20,619	9,163	6,937	2,408	2,110	1
1895	23,102	10,292	7,690	2,723	2,394	3
1896	23,651	10,401	7,920	2,839	2,494	4
1897	23,038	10,049	7,810	2,784	2,389	6
1883 } -87 }	90,130	47,252	24,720	9,851	8,281	26
1888 } -92 }	105,156	48,637	33,690	12,325	10,467	37
1893 } -97 }	113,224	49,934	38,226	13,382	11,661	21

*Annual Report of Births, Marriages, and Deaths in Massachusetts, vols. xlii.-lvi., Table I. (hereafter referred to as *Registration Report*).

In Table VI. the average annual number of natives and foreign born marrying in the three quinquennial periods are compared with the population found at the censuses (see Table I.). The persons marrying whose nativity was unknown are distributed between the natives and foreign born in the proportion of the cases known.

TABLE VI.
GENERAL MARRIAGE-RATES OF THE NATIVE AND FOREIGN BORN.
PERSONS MARRIED.

NATIVITY.	1883-87	1888-92	1893-97
Native	112,669	120,108	124,934
Foreign	67,591	90,204	101,514
State	180,260	210,312	226,448

ANNUAL MARRIAGE-RATES.

NATIVITY.	1883-87	1888-92	1893-97
Native	15.92	15.19	14.40
Foreign	25.66	27.45	26.54
State	18.56	18.79	18.11

If the marriages of the natives are compared with the whole native population, and the marriages of the foreign born with the whole foreign born population, it will be found that the general marriage-rates differ widely, the rate for the foreign born being much in excess. This difference is still increasing, the marriage-rate of the natives showing a decrease from period to period, while the opposite result appears in the figures of the foreign born. It would throw a clearer light upon the matter if the different countries of birth could be distinguished for the natives as well as the foreign born. Now it is not pos-

sible to make that comparison for the whole period, the countries of birth of those marrying being published only for the three years 1887, 1888, 1889. The figures for these years are given in Table VII.

There now arises the difficulty of finding the state of the population at a date appropriate for comparison with these marriages. The ideal would be the population in the middle of 1888, but that is unknown. The census next to this date — *i.e.*, the census of 1890 — is not applicable, as the classification of the countries of birth made by the federal census does not agree with the classification adopted in the registration reports of the state.* Recurrence must then be made to the state census of 1885. In Table IV., column 1, the population of Massachusetts is given in 1885 classified by place of birth. The same classification of the population in 1895, and as far as possible in 1890, together with the rate of increase, is given in the following columns. The annual marriage-rates for the different countries of birth are given in Table VIII., column 1. The 160 persons marrying whose nationality was unknown — they constitute but .13 per cent. of the total — have been neglected. The marriage-rate of the natives is found to be 16.6 per cent., and that of the foreign born 30.9, while that for the state is 20.5. The differences between the marriage-rates of the different countries of birth are still greater. They vary from 14.4 per mille for Massachusetts to 72.3 per mille for Sweden. If Massachusetts with its abnormally low rate is omitted, the next lowest rate, that for Ireland, is still found to be as low as 22.0. Now it must be remembered that the population of 1885, which was chosen as a basis, had changed more or less by 1888; and, if it is safe to judge from the results of the censuses of 1890 and 1895, it had increased for every country of birth. This increase, however, was very unequal, as has been seen from Table IV. The increase of the

* *Cf.* p. 5.

TABLE VII.

MARRIAGES BY COUNTRY OF BIRTH, 1887-89.*

COUNTRY OF BIRTH.	Grooms.			Brides.			Grooms.	Brides.	Married.
	Grooms.			Brides.					
	1887	1888	1889	1887	1888	1889			
Massachusetts	7,911	7,865	7,887	8,370	8,168	8,200	23,663	24,738	48,401
Other New England states . .	2,888	2,717	2,867	2,244	2,257	2,350	8,472	6,851	15,323
Other states	1,192	1,195	1,291	976	955	948	3,678	2,879	6,557
English Canada	319	348	348	296	324	397	1,016	1,017	2,033
French Canada	1,003	964	1,012	966	906	1,000	2,979	2,872	5,851
Nova Scotia	780	813	832	1,079	1,041	1,111	2,425	3,231	5,656
Prince Edward Island	132	165	168	227	276	243	465	746	1,211
New Brunswick	329	333	381	478	439	443	1,043	1,360	2,403
England	872	976	1,000	758	782	858	2,848	2,398	5,246
Scotland	211	246	275	195	240	267	732	702	1,434
Ireland	2,507	2,532	2,534	2,773	2,904	2,921	7,573	8,598	16,171
Germany	349	372	406	263	292	334	1,127	889	2,016
Sweden	300	324	393	306	329	395	1,017	1,030	2,047
Portugal	189	194	217	156	158	182	500	496	996
Other countries	543	680	777	415	616	702	2,000	1,733	3,733
Unknown	8	14	9	31	52	46	31	129	160
Native	11,991	11,777	12,045	11,590	11,380	11,498	35,813	34,468	70,284
Foreign	7,534	7,948	8,343	7,912	8,307	8,853	23,825	23,072	48,897
State	19,533	19,739	20,397	19,533	19,739	20,397	59,669	59,669	119,338

* Calculated from *Registration Report*, vol. xlii, pp. 32-39; vol. xlvii, pp. 36-43; vol. xlviii, pp. 36-43. These figures agree with the totals published in vol. xlii, p. 170 f.; with those in vol. xlvii, p. 162 (excepting the total for Swedish brides, which is 1 too great); and with those in vol. xlviii, p. 162.

population for every country from 1885 to 1888 may be assumed to be three-fifths the increase of the period 1885 to 1890, and, for the cases where the population of 1890 is unknown, three-tenths the increase of 1885 to 1895. The marriage-rates thus corrected are given in Table VIII., column 2.

TABLE VIII.
MARRIAGE-RATES BY COUNTRY OF BIRTH, 1887-89.

COUNTRY OF BIRTH.	Annual general marriage-rate, 1887-89.		Annual marriage-rate of the adult males, 1887-89.		Annual marriage-rate of the adult females, 1887-89.	
	To 1885.	Corrected (1888).	To 1885.	Corrected (1888).	To 1885.	Corrected (1888.)
Massachusetts	14.4	13.4	30.5	28.5	23.2	22.1
New England States . .	23.6	23.0	34.3	32.5	22.0	21.2
Other states	26.9	23.4	47.2	39.4	26.3	23.2
English Canada	42.7	24.4	63.8	33.1	42.5	25.0
French Canada	30.2	25.0	44.3	35.9	35.5	29.3
Nova Scotia	46.2	43.7	59.2	54.9	49.8	46.9
Prince Edward Island .	59.3	53.3	74.2	65.9	65.3	58.2
New Brunswick	48.7	45.3	69.0	62.4	51.2	48.1
England	30.7	25.5	40.7	35.4	31.9	28.0
Scotland	29.9	24.5	37.2	32.0	32.1	27.5
Ireland	22.0	21.2	25.7	25.2	21.1	20.6
Germany	29.1	25.8	34.4	31.3	31.6	28.0
Sweden	72.3	45.6	84.5	51.7	84.0	51.4
Portugal	54.3	45.7	57.5	43.4	65.4	48.7
Other countries	47.5	28.7	56.5	32.9	55.3	35.7
Native	16.6	15.5	32.6	30.3	23.2	22.0
Foreign	30.9	26.9	38.5	33.4	31.7	28.3
State	20.5	18.6	34.7	31.4	26.1	24.3

The rates for natives and foreign born are now 15.5 and 26.9 respectively, and for the state 18.6, in each case a result lying between the results found for the quinquennial periods 1883-87, and 1888-92. The rate for Massachusetts is still the lowest; but it must be noted that the other natives, those born in the other New England states as well as those born in other states and territories of the

Union, also show very low rates, hardly exceeding, in fact, the rate of the population born in Ireland. The highest rate is found for Prince Edward Island, then for Portugal, Sweden, New Brunswick, and Nova Scotia. The other countries show rates more or less similar to the general average.

If the countries are combined in eight groups, the lowest rate is found for Massachusetts (13.4), then for Ireland (21.2); the other native born (23.2); Canada, (24.8); England, Scotland, Germany (25.4); the countries not specified (28.7); Nova Scotia, Prince Edward Island, New Brunswick (45.2); Sweden and Portugal (45.3). The foreign born other than the Irish have a marriage-rate of 31.1.

Now the foreign born as well as the natives not born in Massachusetts are a population which has immigrated to this State. But amongst immigrants the number of children — *i.e.*, the class of persons which naturally and by law are forbidden to marry — is but small. So, other things being equal, those born outside of Massachusetts would show a higher marriage-rate than the natives of the state. To obtain comparative values, the population under twenty years in the case of males and under fourteen in the case of females may be deducted from the population, both native and foreign born of the respective sexes. These deductions are not entirely correct, as amongst the grooms there are some of less than twenty, and among the brides a very few of less than fourteen years. These, however, were only exceptions, and of such small importance that they may safely be ignored.*

* In the years 1883-1887 there were respectively 320, 314, 350, 336, and 374 grooms under twenty years; in all, 1,694, or 1.88 per cent. of the 90,074 grooms of whom the age was known. In the years 1888-92 there were 368, 411, 376, 398, and 427 grooms under twenty years; in all, 1,980, or again 1.88 per cent. of the 105,125 grooms with age known. And in the years 1893-97 there were 441, 377, 401, 417, 352 grooms under twenty years; in all, 1,988, or 1.76 per cent. of the 113,221 grooms of whom the age was known. The grooms under twenty years are found especially among the French Canadians. While the

The result of the comparison of the persons marrying with the adult population thus found is given in Table IX.

The special marriage-rate of the natives was declining for both sexes from period to period, and particularly from 1883-87 to 1888-92. This decrease is especially great for the male sex. For the foreign born there was, for both sexes, an increase from 1883-87 to 1888-92, followed by a decrease from 1893-97. The changes in the special marriage-rates of the foreign born males were but slight. The rate for 1893-97 is the same as for 1883-87. For the female sex the increase from 1883-87 to 1888-92 was very large, much greater than the decrease from 1888-92 to 1893-97; so that, on the whole, the marriage-rate of the foreign born women exhibits a small increase. Comparing the marriage-rates of the foreign born and natives in the first period, the difference between the rates of the males was but small. For the years 1883-87 the natives had about the same marriage-rate as the foreign born, the rates being 31.2 per mille and 32.0 per mille; but in the next period the rate decreased very decidedly for the native born, and increased not inconsiderably for the foreign born, so that the difference became very large. It was not diminished in the next period, as both for the native and foreign born there was a similar decrease. In 1888-92 and 1893-97 the special marriage-rates for the natives were 28.9 and 27.5, for the foreign born 33.5 and 32.0. The native women show already in the first period a much smaller special marriage-rate than the foreign born, the rate being for the natives 22.4, for the foreign 26.2. In the following period this low rate of the natives undergoes a further large decrease, while the high

French Canadian grooms in the years 1887-89 were but 2,979, or 5 per cent. of the whole number of grooms, they constituted together 207, or 18 per cent. of the 1,153 grooms under twenty years. In the same period, 1883-97, the recorded number of brides under fourteen years was only 17, or 0.005 per cent. of the whole number of brides (1883, 1; 1884, 2; 1885, 2; 1886, 2; 1887, ?; 1888, 4; 1889, 1; 1890, 1; 1893, 1; 1894, 1; 1895, 2).

TABLE IX.

SPECIAL MARRIAGE-RATES OF THE NATIVE AND FOREIGN BORN.

NATIVITY.	Population.		Marriages.			Annual special marriage-rate †	
	1885	1890 †	1885-87	1888-92	1893-97	1883-87	1888-92
Males 20 years of age and over and age unknown:							
Native	366,499 *	422,640	57,120	60,983	63,328	31.17	28.86
Foreign	206,22 *	263,709	33,010	44,173	49,896	32.01	33.50
State	572,726	686,349	90,130	105,156	113,224	31.47	30.64
Females 14 years of age and over and age unknown:							
Native	495,868 †	558,686	55,549	59,125	61,606	22.40	21.17
Foreign	263,792 †	318,528	34,581	46,031	51,618	26.22	28.90
State	759,660	877,214	90,130	105,156	113,224	23.73	23.97

* *Census of 1885*, vol. i., part 1, p. lviii.† Calculated from *Census of 1885*, vol. i., part 1, p. lxiii.

† Calculated from *Census of 1890*, vol. i., p. 851; vol. ii., p. 44. The *Census of 1890* gives only the total number of natives and foreign born. It does not distinguish the natives among the colored. In the special figures of age statistics an estimate must therefore be made of the native colored. The total number of natives in the state was 1,581,806, the number of native whites being 1,561,870. It follows by subtraction that the number of native colored was 19,936. The total number of persons of negro descent was 22,144, that of the other colored 1,428. The other colored may be supposed to have been all foreign born in 1895 the percentage was 76, *Census of 1895*, vol. ii., pp. 218 and 220, and the 19,936 native colored all negroes. These 19,936 constitute exactly 90 per cent. of the total number of the persons of negro descent. The result is the same if both sexes are treated separately. The total number of native males was 773,853, that of the native white males 764,059. The number of native colored males was 9,794, or 90 per cent. of the 10,879 negroes. The total number of native females was 807,953, that of the native white females was 797,811, the number of native colored females 10,142, being again 90 per cent. of the 11,265 females of negro descent. In the following investigation, therefore, the term "natives in 1890" may be safely understood as meaning the native whites and 90 per cent. of the persons of negro descent. In like manner the term "foreign born in 1890" may be taken to mean the foreign whites, 10 per cent. of the persons of negro descent, and the total number of other colored.

§ *Census of 1895*, vol. ii., p. 224.|| Calculated from *Census of 1895*, vol. ii., pp. 422, 337.

§§ The grooms and brides not adult are treated as if they had married after their twentieth and fourteenth years of age respectively.

rate of the foreign born shows a large increase. The decrease in the last period was about the same for both rates, and did not, therefore, make any material change in the relation between them. In 1888-92 and in 1893-97 the rate was respectively 21.2 and 20.5 for the natives and 28.9 and 27.6 for the foreign born.

The comparison may now be extended to the different countries of birth; *i.e.*, the annual average for the years 1887-89 of the marriages of the grooms born in the different countries may be compared with the total males over twenty years of age born in these countries and living in Massachusetts at the time of the census of 1885, and in the same way the brides may be compared with the females over fourteen years of age. The results of the census are given in Table X., columns 1 and 4; the rates found by the comparison in Table VIII., columns 3 and 5. As regards the grooms, we find that the lowest special marriage-rates are found in the case of Ireland, 25.7; Massachusetts, 30.5; the other New England states, 34.3; the highest for Sweden, 84.5; Prince Edward Island, 74.2; New Brunswick, 69.0. The order of the figures, as will easily be seen, is similar for the brides, but with exceptions. It must again be remembered, however, that the population of 1885 does not give a very exact basis. In order to obtain this, the state census of 1895 alone must be relied upon, as the federal census of 1890 does not give any information at all about the ages of the natives and foreign born combined with the country of birth. It must therefore be assumed that the population of 1888 was greater than that of 1885 by three-tenths of the increase of 1885-95. A further incorrectness grows out of the circumstance that, as the age classification of the censuses of 1885 and 1895 differ, the females for 1895 had to be considered adult from their sixteenth year, those of 1885 from their fifteenth year. The adult population for 1895 and the rate of increase for 1885-95 are given in

TABLE X.

ADULT POPULATION BY SEX AND COUNTRY OF BIRTH, 1885, 1895. INCREASE.

COUNTRY OF BIRTH.	Males 20 years and over and age unknown.			Females 14 (15) years and over and age unknown.		
	1885*	1895†	Increase 1885-95	1885*	1895†	Increase 1885-95
Massachusetts	258,236	319,187	13.6	355,754	415,684	16.8
Other New England states	82,281	97,870	18.9	103,670	116,860	12.7
Other states	25,982	42,967	65.4	36,444	52,806	44.9
English Canada	5,307	21,641	308.7	7,968	26,680	234.8
French Canada	22,427	40,066	77.8	26,968	46,098	70.9
Nova Scotia	13,645	17,231	26.3	21,622	26,079	20.6
Prince Edward Island	2,090	2,959	41.6	3,807	5,369	44.0
New Brunswick	5,041	6,824	35.4	8,848	10,725	22.0
England	23,339	34,890	49.5	25,042	36,706	46.7
Scotland	6,456	10,163	54.7	7,295	11,302	54.9
Ireland	98,199	104,983	6.9	135,796	145,592	7.5
Germany	10,908	14,580	33.7	9,379	13,455	43.5
Sweden	4,013	12,478	210.9	4,088	12,730	211.4
Portugal	2,898	6,045	108.6	2,529	5,406	113.8
Other countries	11,804	39,929	238.3	10,450	29,576	183.0
Native	366,499	460,024	25.5	495,868	585,351†	18.0†
Foreign	206,227	311,789	51.2	263,792	369,788†	40.2†
State	572,726	771,813	34.8	759,660	955,139†	25.7†

* *Census of 1885*, vol. i., part 1. pp. 572-574.† *Census of 1895*, vol. ii. pp. 700-707.

† The figures for the females do not contain, as stated above, the women from 14 to 15 years. The number of female natives of 14 years of age and over was (*cf.* Table IX.) 602,048 which means an increase of 21.4 per cent. since 1885 instead of 18.0; that of the foreign born, 373,830, an increase of 41.6 per cent. instead of 40.2; that of the total women, 975,578, an increase of 28.4 per cent. instead of 25.7. These deviations are so small that they would not affect one of the figures given in Table VIII. column 6, and Table XI.

Table X., columns 2, 3, 5, 6, the corrected special marriage-rates in Table VIII., columns 4 and 6. For both sexes the adults born in Ireland show the smallest marriage-rate; *i.e.*, 25.2 and 20.6, respectively. Then follow, for the grooms, Massachusetts, 28.5; Germany, 31.3; Scotland, 32.0; the other New England states, 32.5. For the brides the rate next to Ireland is shown by the other New England states, 21.2; Massachusetts, 22.1; the other states, 23.2; English Canada, 25.0. The highest rate for both sexes is found for Prince Edward Island, 65.9 and 58.2, respectively; followed for males by New Brunswick, 62.4; Nova Scotia, 54.9; Sweden, 51.2; Portugal, 43.4; for females, by Sweden, 51.4; Portugal, 48.7; New Brunswick, 48.0; Nova Scotia, 46.9. For both sexes the five countries of birth exhibiting the highest rates are the same. The analogy of both sexes, in general, will appear better from a comparison of the results for the eight groups mentioned above (*cf.* Table XI.).

TABLE XI.

SPECIAL MARRIAGE-RATES BY GROUPS OF COUNTRIES OF BIRTH,
1887-89.

GROUPS OF COUNTRIES OF BIRTH.	Annual Marriage-rates of the Adult.	
	Males.	Females.
I. Massachusetts	28.5	22.1
II. Other states of the Union	34.3	21.8
III. Canada	35.1	28.0
IV. Nova Scotia, New Brunswick, P. E. Island,	57.6	48.5
V. England, Scotland, Germany	33.8	27.9
VI. Ireland	25.2	20.6
VII. Sweden, Portugal	48.6	50.5
III. Other countries	32.9	35.7

It can easily be seen that, for the male sex, four of the eight groups show average marriage-rates, the rates for

group I. and especially for group VI. being exceptionally low, and those for groups IV. and VII. abnormally high. For the female sex, groups I. and VI., and, in addition, group II. show a very low rate, and groups IV. and VII. again a very high rate.

The salient difference between both sexes is with natives born in the Union outside of Massachusetts, and especially outside of New England. While the special marriage-rate of the males born in the United States outside of New England (39.4) is much higher than the average rate for the total population of the state (31.4,) and also higher than that of the foreign born (33.4), the special marriage-rate of the females born in the same states (23.2) is not only much smaller than that of the foreign born (28.3), but also less than the average of the state (24.3). To this difference, then, is due the fact already noticed, that the special marriage-rate of the native females is more behind that of the foreign born than that of the males.

It may now be objected that the high special marriage-rate of the foreign born adults is perhaps due to a greater proportion of unmarried people than obtains among the natives. To test the objection, it will be necessary to eliminate from among the people of marriageable age those of unmarriageable condition,—*i.e.*, the married,—and compare the natives and foreign born marrying with the population of marriageable conjugal condition. These refined marriage-rates are given in Table XII.*

If these refined marriage-rates are compared with the special rates, first for the two groups of general nativity considered separately, a decrease is again found for the natives from period to period for both sexes. For the foreign males the increase in the marriage-rate from 1883-87 to 1888-92 disappears here, and gives place to a

* It is hard to understand how Arsène Dumont in his "Essai sur la natalité en Massachusetts" (op. cit. p. 338) can say, "Faute de donner une bonne répartition de la population par âge et par état civil, les census ne permettent pas . . . de calculer . . . le rapport des variables aux mariés." . . . Cf. op. cit. p. 347.

TABLE XII.

REFINED MARRIAGE-RATES OF THE NATIVE AND FOREIGN BORN.

NATIVITY.	Unmarried population.			Refined annual marriage-rates.**		
	1885	1890	1895	1883-87	1888-92	1893-97
Males 20 years of age and over and age unknown:						
Native	138,558*	170,347 †	190,383	82.45	71.60	66.53
Foreign	66,169*	94,410 †	110,591	99.77	93.58	90.24
State	204,727	264,757 †	300,974	88.05	79.44	75.24
Females 14 years of age and over and age unknown:						
Native	264,331 †	304,710 §	331,082 ¶	42.03	38.81	37.21
Foreign	124,201 †	151,245 §	172,688 ¶	55.69	60.87	59.78
State	388,532	455,955	503,770	46.40	46.13	44.95

* Calculated from *Census of 1885*, vol. i., part 1, p. lviii.† Calculated from *Census of 1885*, vol. i., part 1, pp. 272 f., 443.‡ Calculated from *Census of 1890*, vol. i. p. 851. Cf. Table IX., note †.§ Calculated from *Census of 1890*, vol. ii. p. 44.|| Calculated from *Census of 1895*, vol. ii. p. 224.¶ Calculated from *Census of 1895*, vol. i. pp. 216-219, 223, 337, 422.

** Cf. Table IX., note §§.

decrease, which continues in the next period, so that the foreign males have also an uninterrupted decrease. For foreign women the strong increase shown from 1883-87 to 1888-92 is followed here by a decrease in the last period of but slight importance. A comparison of the special and the refined marriage-rates leads to the conclusion that the objection made was wrong, and that, after elimination of the persons already married, the differences seem still greater. Compared with the whole adult population, the marriages of the males in 1883-87 seemed alike for both groups of nativity. Compared with the adults not married, the natives had a proportion of only 82.4, the foreign of 99.8, marrying. An increased difference is shown by a comparison of the results for 1888-92, the rates being respectively 71.6 and 93.6, followed by a still greater in the years 1893-97, the rate of the natives dropping to 66.5, and that of the foreign born only to 90.2. The same is true for the female sex. In the first quinquennial period the difference is already very great, the rate for the native women being 42.0, that for the foreign born 55.7. In the following period that of the natives decreases to 38.8, while that of the foreign born increases to 60.9. And, as in the case of the male sex, the reverse of what was found in the comparison of the special rates may be stated for the refined rates; namely, a still greater difference for the years 1893-97, the rates being 37.2 and 59.8.

As the conjugal condition of the population born in the different countries is not known, it is not possible to extend the computation of the refined marriage-rates to these different parts of the population.*

* As, however, the *Census of 1885* shows for some countries of birth the number of women who were married or who had been married, it is possible to find by a simple deduction from the total adult women the number of adult single women born in these countries. As the adult single women constitute three-fourths (74.5 per cent.) of the total unmarried women of the state (77.3 per cent. among the natives, and 68.6 per cent. among the foreign born), and

It may now be contended that, perhaps, the age configuration of the unmarried foreign born increases their inclination to marriage, the proportion of the persons in age groups specially fit to marry being, perhaps, smaller in case of the native born.

To investigate the truth of this contention, it is necessary to compare the marriage-rates of the different age groups of unmarried persons, both natives and foreign born. Now the marriage age of the natives and foreign born is known only for the three years 1887, 1888, and 1889. As the federal census of 1890 gives the conjugal condition for natives and foreign born by age groups, its results may serve as a basis of comparison. In Table XIII. the annual marriage-rates of the natives and foreign born are given for both sexes for seven age groups.

The average rate for the males over twenty years is, for natives, 69.2; for the foreign born, 83.8. The difference is greatest for the youngest age group, *i.e.*, the men under twenty years, which is of but small importance. The reason for the excess of the foreign born here is to be found in the inclination of the French Canadians, mentioned

as the probability of marriage is much greater for the single women than is the probability of remarriage for the widows and divorced, the percentage of single women among the adult women will fairly indicate the differences which would result from a computation of the refined marriage-rates. The fact that the single women constitute 41.2 per cent. of the total adults among the natives, and only 32.3 per cent. among the foreign born (the percentage for the state being 38.1), thus explains the larger difference between the refined marriage-rate of the native and foreign born than between the special rates. The percentages of the single women among the total adult women born in different countries are as follows: Massachusetts, 46.1; Other New England states, 25.8; Other states, 37.2; English Canada, 40.4; French Canada, 35.9; Ireland, 30.1; Germany, 18.0; all other countries, 35.5. The most striking results are the high proportion of single among the adult natives of Massachusetts, and the small proportion for the Other New England states and Germany. The small special marriage-rate of the natives of Massachusetts gains thus in importance, while that of the natives of the Other New England states seems partly, that of the Germans entirely, due to the large proportion of women living in wedlock. The very small nuptiality of the natives born outside of New England indicated by the special marriage-rate would then probably appear also from a comparison of the refined marriage-rates.

TABLE XIII.

REFINED MARRIAGE-RATES OF THE NATIVE AND FOREIGN BORN BY
AGE GROUPS, 1887-89.

AGE GROUPS.	UNMARRIED POPULATION, 1890.*			
	Males.		Females.	
	Native.	Foreign.	Native.	Foreign.
15-19	81,880	21,790	80,941	25,321
20-24	65,550	32,608	57,155	34,349
25-29	34,357	22,411	30,726	19,940
30-34	19,824	10,172	20,464	9,033
35-44	19,531	10,982	25,911	14,808
45-54	10,341	7,250	20,517	15,803
55 and over . .	18,931	9,959	51,114	27,974
15 and over . .	250,414	115,172	286,828	147,228
20 and over . .	168,534	93,382		

AGE GROUPS.	MARRIED, 1887-89.†			
	Males.		Females.	
	Native.	Foreign.	Native.	Foreign.
15-19	818	333	6,529	3,024
20-24	12,879	8,338	14,732	11,753
25-29	11,219	8,586	7,353	6,423
30-34	4,983	2,956	2,855	1,879
35-44	3,573	2,407	2,022	1,525
45-54	1,319	873	674	380
55 and over . .	1,015	329	287	82
15 and over . .	5,806	23,822	34,452	25,066
20 and over . .	34,988	23,489		

* *Census of 1890*, part 1, p. 851. Cf. p. 16, note †.

† Calculated from *Registration Report*, vol. xlv. pp. 32-39; vol. xlvii. pp. 36-43; vol. xlviii. pp. 36-43.

REFINED ANNUAL MARRIAGE-RATES.

AGE GROUPS.	Males.		Females.	
	Native.	Foreign.	Native.	Foreign.
15-19	3.3	5.1	26.9	39.8
20-24	65.5	85.2	85.9	114.1
25-29	108.8	127.7	79.8	107.4
30-34	83.8	96.9	46.5	69.3
35-44	61.0	73.1	26.0	34.3
45-54	42.5	40.1	10.9	8.0
55 and over . .	17.9	11.0	1.0	1.0
15 and over . .	47.7	68.9	40.0	56.8
20 and over . .	69.2	83.8		

above, to marry young. The difference for the men from twenty to twenty-four years is also above the average. The groups twenty-five to forty-four show a smaller difference than the average, and over forty-five the marriage-rate of the foreign born is less even than that of the natives. Results somewhat similar are found for the female sex. The average difference is exceeded by that in the youngest group and in the group of thirty to thirty-four years. The persons over forty-five years of age again show a higher marriage-rate for the natives.

The enormous difference, then, found between the general marriage-rate of the natives and foreign born is caused partly by the greater number of children among the natives. In the special rates obtained by eliminating these children, the difference decreases considerably. But this decrease is partly due to the greater number of persons unmarried among the natives, so that the computation of the refined marriage-rates for the unmarried adults makes the difference again greater. For both sexes the native population over forty-five years has a higher marriage-rate than the foreign born. The high marriage-rate of the foreign born is especially due to the strong inclination

to marriage on the part of the population born in Nova Scotia, New Brunswick, Prince Edward Island, Portugal, and Sweden, while the persons born in Ireland have a still smaller marriage-rate than those born in Massachusetts. The native women born outside of New England have a very small marriage-rate, but that of the males is comparatively high.

2. *The Conjugal Condition.*

It may seem superfluous, at first sight, to make any further investigation of the conjugal condition of the native and foreign born population in Massachusetts. As the marriage-rate of the foreign born was found to be much higher for a period of fifteen years, it may seem natural that the proportion of married people should also be larger among the foreign born than among the natives at the same period. But that is not necessarily true. The frequency of marriage, although the principal factor in determining the composition of a population with regard to conjugal condition, is not the only one. The age at marriage, and the duration of the marriages, also exert an influence. Again, the conjugal condition of the emigrants and immigrants is a factor which could influence the conjugal condition of two groups of population. It may be remembered, further, that our investigation so far has treated the marriages in the years 1883-97, while the births occurring in the same period owe their origin partly to marriages celebrated twenty years and more before, and that the conjugal condition of the population in the years 1883-97, which will be taken as a basis for the births, is not only the consequence of the marriages of the same period, but to a large extent the consequence of the marriages preceding that period. In order to make a thorough investigation of fecundity during the years 1883-97, it will be necessary to supplement the investigation of the marriages by a short glance at the conjugal

condition of the population in the same period. As in the matter of present propagation, the persons who are no longer married occupy the same rank as the single, it will be sufficient to treat the two groups of married and not married people, considering on the one side the married, and on the other the single, widowed, and divorced, and adding to them the persons of conjugal condition unknown. Table XIV. gives the native and foreign born population by sex and conjugal condition, and the proportion of the married and not married at the three censuses of 1885, 1890, and 1895.

For both sexes at each census the proportion of the not married was larger among the natives, while for the married the foreign born lead. For both sexes the proportion of the unmarried is increasing among the natives from census to census,—a result which seems to correspond with the decreasing marriage-rate stated above for the natives. On the other hand, an oscillation of the proportions of the two classes will be found for both sexes of foreign born,—a development parallel to that of the marriage-rates. It is not possible to give any data for the proportion of married and not married persons born in the different countries of birth, as no figures on that subject were published at any of the three censuses.

As was stated in the preceding discussion of marriages, the proportion of persons not capable of being in any other conjugal condition than the single — *i.e.*, the children — is much larger among the natives than among the foreign born. To eliminate this dissimilarity, Table XV., showing only the adult of both sexes, has been prepared.

The foreign born still show for both sexes at each census a much larger proportion of married than the natives. The small proportion of married among the natives is still decreasing for both sexes from census to census. While, for the males, the foreign born denote rather a decrease

TABLE XIV.

POPULATION BY SEX, NATIVITY, AND CONJUGAL CONDITION. 1885, 1890, 1895, PERCENTAGES.

NATIVITY.	Males.		Females.		Males.		Females.	
	Married.	Not married.	Married.	Not married.	Married.	Not married.	Married.	Not married.
Native . . .	228,276	460,008	231,538	1885*	33.17	66.83	31.85	68.15
Foreign . . .	140,181	104,419	139,591	495,452	57.31	42.69	49.45	50.55
Total . . .	368,457	564,427	371,129	142,676	39.50	60.50	36.77	63.23
Native . . .	252,536	521,317	253,976	1890†	32.63	67.37	31.43	68.57
Foreign . . .	169,410	144,446	167,283	553,977	53.98	46.02	48.73	51.27
Total . . .	421,946	665,763	421,259	175,998	38.79	61.21	36.59	63.41
Native . . .	270,063	578,249	270,966	1895‡	31.84	68.16	30.55	69.45
Foreign . . .	201,374	165,015	200,842	615,975	54.96	45.04	50.39	49.61
Total . . .	471,437	743,264	471,808	197,699	38.81	61.19	36.70	63.30

* Calculated from *Census of 1885*, vol. i., part 1, p. lvii.† Calculated from *Census of 1890*, vol. i. p. 851. Cf. p. 16, note †.‡ Calculated from *Census of 1895*, vol. ii. p. 223.

TABLE XV.

ADULT POPULATION BY SEX, NATIVITY, AND CONJUGAL CONDITION. 1885, 1890, 1895, PERCENTAGES.

NATIVITY.	Males, 20 years and over.		Females, 14 years and over.		Males, 20 years and over.		Females, 14 years and over.	
	Married.	Unmarried.	Married.	Unmarried.	Married.	Unmarried.	Married.	Unmarried.
Native . . .	227,941	138,558	231,537	1885* 264,331	62.19	37.81	46.69	53.31
Foreign . . .	140,058	66,169	139,591	124,201	67.92	32.08	52.92	47.08
Total . . .	367,999	204,727	371,128	388,532	64.25	35.75	48.85	51.15
Native . . .	252,293	170,347	253,976	1890† 304,710	59.69	40.31	45.46	54.54
Foreign . . .	169,299	94,410	167,283	151,245	64.21	35.80	52.52	47.48
Total . . .	421,592	264,757	421,259	455,955	61.43	38.57	48.02	51.98
Native . . .	269,641	190,383	270,966	1895‡ 331,082	58.62	41.38	45.01	54.99
Foreign . . .	201,198	110,591	200,842	172,688	64.53	35.47	53.77	46.23
Total . . .	470,839	300,974	471,808	503,770	61.00	39.00	48.36	51.64

* For males *cf. Census of 1885*, vol. i., part 1, p. lviii.. Females calculated from *Ibid.*, p. 272.† Calculated from *Census of 1890*, vol. i. p. 851; vol. ii. p. 44. *Cf.* p. 16, note †.‡ For males *cf. Census of 1895*, vol. ii. p. 224. Females calculated from pp. 216-219, 223, 337, 422.

of the proportion of married persons, they show for the females a continued increase from census to census. The elimination of the children, then, had only the effect of diminishing the excess in the proportion of the married among the foreign born over the natives found in the comparison of the entire population.*

In order to see if (and how far) this supremacy of the foreign born in the proportion of married persons among the adults is perhaps due to a different age constitution of the native and foreign born, it would be necessary to extend the investigation to the different age groups. But the census of 1885 does not give separately the conjugal condition by age groups of the natives and foreign born; and, as the age classification in the census of 1890 does not agree with that followed in the state census of 1895, the result of the latter may alone be considered.

*The *Census of 1885*, giving the number of women living in wedlock or having been married, allows a comparison of at least the single adult women with the not single; namely, those who are married or have been married. The results are as follows (calculated from *Census of 1885*, vol. i., part 1, pp. 572-574; part 2, p. 1172, f.):—

COUNTRY OF BIRTH.	Females, 14 years and over.		Percentage.	
	Single.	Not single.	Single.	Not single.
Massachusetts	163,979	191,776	46.1	53.9
Other New England states . .	26,776	76,894	25.8	74.2
Other states	13,560	22,884	37.2	62.8
English Canada	3,218	4,750	40.4	59.6
French Canada	9,692	17,476	35.9	64.1
Great Britain	9,492	23,295	29.0	71.0
Ireland	40,827	94,969	30.1	69.9
Germany	1,688	7,691	18.0	82.0
Other countries	20,223	30,671	39.8	60.2
Native	204,315	291,554	41.2	58.8
Foreign	85,140	178,652	32.3	67.7
State	289,455	470,206	38.1	61.9

The proportion of single persons is especially high for the natives of Massachusetts and the English Canadians and excessively low for the natives born in the other New England states and Germany. The women born in Great Britain and Ireland have also a percentage of single persons smaller than the average of the foreign born.

TABLE XVI.

POPULATION BY SEX, NATIVITY, CONJUGAL CONDITION, AND AGE GROUPS IN 1895.*

NATIVE MALES.										PERCENTAGE.									
Conjugal Condition.	15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.	Un- known.		15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.			
Married . .	422	42,294	78,656	63,264	42,898	39,784	2,586	159		.50	27.76	68.85	79.02	80.89	73.91	46.36			
Not married,	83,605	110,050	35,587	16,792	10,133	14,047	2,992	782		99.50	72.24	31.15	20.98	19.11	26.09	53.64			
FOREIGN MALES.										PERCENTAGE.									
Conjugal Condition.	15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.	Un- known.		15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.			
Married . .	176	34,337	62,728	48,095	33,492	21,674	708	164		.66	36.18	74.50	82.46	81.29	70.29	41.52			
Not married,	26,362	60,575	21,470	10,228	7,709	9,163	997	944		99.34	63.82	25.50	17.54	18.71	29.71	58.48			
NATIVE FEMALES.										PERCENTAGE.									
Conjugal Condition.	15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.	Un- known.		15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.			
Married . .	3,165	63,984	80,693	58,287	37,466	26,244	919	200		3.74	60.81	67.30	69.43	62.76	41.00	10.44			
Not married,	81,553	99,299	39,215	25,558	22,229	37,762	7,883	794		96.26	39.19	32.70	30.57	37.24	59.00	89.56			
FOREIGN FEMALES.										PERCENTAGE.									
Conjugal Condition.	15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.	Un- known.		15-19.	20-29.	30-39.	40-49.	50-59.	60-79.	80 and over.			
Married . .	1,741	52,000	61,421	43,862	27,352	14,105	207	152		5.69	46.91	75.10	72.55	60.00	37.49	8.54			
Not married,	28,857	58,853	20,364	16,595	18,232	23,515	2,218	314		94.31	53.09	24.90	27.45	40.00	62.51	91.46			

* Calculated from *Census of 1895*, vol. ii. pp. 216-219.

The proportion of the married among the whole male population is higher for the foreign born than for the natives in every age group up to sixty years. The excess is especially great for the persons between twenty and forty years. In the older groups the difference decreases until among the persons over sixty years the natives have a higher proportion of married than the foreign born. While the proportion of the married increases among the natives up to sixty years, and shows a decrease only for the two oldest groups, the decrease begins among the foreign born in the age group fifty to fifty-nine. At first slow, it is in the oldest groups much stronger than for the natives. The development for the females is quite similar. The excess in the proportion of married persons among the foreign born is also very high for the persons under forty years. It decreases much in the next decennial group, and in every age group above fifty years the natives have a higher proportion of married people than the foreign born. While the proportion of married among the natives increases up to fifty years, the increase ceases for the foreign born again at the preceding period; and the decrease which follows is stronger than for the natives.

The superiority of the foreign born population in regard to the proportion of married persons acquires, then, a still greater importance, as it takes place for the males in the age groups below sixty years, and for the females below fifty years, reaching its maximum for both sexes in the most fruitful period of life.*

*The *Census of 1885* makes it possible to compare the proportion of at least the single women among the total adult women born in various countries for the different age groups. The number of married women will be given in Tables XXIX. and XXX. (cf. *Census of 1885*, vol. i., part 2, p. 1173). The number of single women (calculated from *Census of 1885*, vol. i., part 1, pp. lxiii, 572-574, and part 2, p. 1173), and the proportions they constitute of the total adult women, are as given in table on following page.

With the exception of the groups twenty to twenty-nine years, the proportion of the single is higher in every group among the natives than among the foreign born. As in the average for adults (p. 30, note *), the percentage is highest in the case of the natives of Massachusetts for every age group between

PERCENTAGE OF TOTAL ADULT WOMEN.

SINGLE ADULT WOMEN BY COUNTRY OF BIRTH, AND AGE GROUPS.

COUNTRY OF BIRTH.	PERCENTAGE OF TOTAL ADULT WOMEN.							Age un- known	PERCENTAGE OF TOTAL ADULT WOMEN.						
	14-19	20-29	30-39	40-49	50-59	60-79	80 and over		14-19	20-29	30-39	40-49	50-59	60-79	80 and over
Massachusetts	72,147	58,857	16,101	7,564	4,406	4,217	683	4	96.9	58.8	25.8	17.7	14.0	10.9	11.7
Other New England states,	8,344	10,066	3,884	2,000	1,408	942	128	4	93.0	44.4	18.0	10.8	9.5	6.1	7.9
Other states	5,535	5,530	1,477	620	209	149	31	9	95.1	47.9	17.8	11.5	7.2	6.6	12.6
English Canada	945	1,650	415	117	66	22	3	—	94.2	53.7	21.1	10.4	12.2	8.7	25.0
French Canada	5,362	3,495	631	135	42	23	4	—	92.6	40.2	12.2	3.5	1.9	2.1	4.5
Great Britain	3,830	3,963	973	379	214	127	5	—	96.2	46.6	13.2	6.6	5.4	4.2	2.6
Ireland	7,525	21,019	6,066	3,330	1,662	1,172	47	6	98.2	68.6	21.9	11.3	7.6	6.9	3.4
Germany	832	634	72	91	31	27	1	—	95.3	31.0	3.4	4.5	2.3	2.8	2.2
Other countries	5,322	10,943	2,437	920	395	167	35	4	93.7	55.9	20.2	12.9	10.0	7.3	18.1
Native born	86,026	74,453	21,462	10,164	6,023	5,308	842	17	96.4	55.4	23.2	15.3	12.3	9.4	10.9
Foreign born	23,816	41,704	10,594	4,972	2,410	1,538	95	11	95.3	57.5	18.8	10.1	7.1	6.3	5.0
State	109,842	116,157	32,056	15,156	8,433	6,846	937	28	96.2	56.1	21.5	13.0	10.2	8.5	9.7

3. *Summary on Nuptiality.*

The conclusions which may be drawn from the preceding study of nuptiality are the following:—

I. In the quinquennial period 1883–97 the general marriage-rate of the foreign born is three-fourths higher than that of the native born. That difference is partly due to the large proportion of children among the natives. The *special* marriage-rate of the foreign born adult men is but one-ninth, that of the women three-tenths higher than that of the adult natives. But, as the proportion of unmarried persons is much larger among the native adults, the differences between the *refined* marriage-rates of the not married adults are higher, that of the foreign born men exceeding that of the natives by three-tenths, that of the women by nearly one-half. The importance of these differences increases still more if the question of fecundity is considered, as a separate treatment of the different age groups seems to show for both sexes in the very fruitful age a still larger excess of the refined mar-

thirty and eighty years. The English Canadians, who, on the average, showed a higher percentage than the average of the state, have a smaller proportion for every age group under fifty years. On the other hand, the Germans, who, on the whole, had an exceedingly small percentage of single, show the same for every age group. The same may be said of the women born in the Other New England states and in Great Britain, who in every age group have a percentage of single persons smaller than the average of the state. But, perhaps, the most striking exception is furnished by the Irish women. While, on the whole, their percentage of single women is much smaller than that of the state, and even smaller than the average of the foreign born, they have by far the highest percentage of single women among the women under thirty years of age. Their percentage in the age group thirty to thirty-nine is only exceeded by the natives of Massachusetts, and in every age group from forty to eighty years they have a higher percentage of single women than the average of the state. The Irish, with 30 per cent. single among the total adult women, have in every age group under fifty years a higher proportion of single women than the English Canadians with 40 per cent. single among the total adult. The reason for this anomaly is to be found in the fact that, on the whole, the adult Irish population is much older, the adult English Canadian population much younger, than the total adults of the State. This, again, emphasizes the fact that every study of vital statistics is liable to lead to erroneous results without an examination of age constitution.

riage-rate of the foreign born, while the natives have a higher marriage-rate than the foreign born in the oldest groups. A subdivision of the fifteen years into three quinquennial periods shows for all the marriage-rates of the natives a decided decrease from period to period, while the rates of the foreign born have a larger increase from the first period to the second than they have a decrease from the second to the third; but the refined marriage-rate of the foreign born males shows a continual decrease.

II. In the triennial period from 1887 to 1889 the natives born in Massachusetts have the smallest general marriage-rate. It is exceeded by three-fifths by the Irish, by three-fourths by the other natives. The general marriage-rate of most of the other countries is twice as large as that of the natives of Massachusetts, while that of persons born in Nova Scotia, Prince Edward Island, New Brunswick, Sweden, and Portugal, seems to have been twice as large as that of the natives born outside of Massachusetts. The special marriage-rate of the adults is smallest with the Irish and with the natives born in New England, while the rate of the five above-named countries is more than twice as large. While the special marriage-rate of the native males born outside of New England is a third higher than that of the other natives, both classes of natives show the same rates for the female sex. Although the statistics of the population of the different countries of birth ought to be much improved before they warrant final conclusions, the small nuptiality of all the natives of New England,—of the persons born in Ireland, and of the females of the other states of the Union, seems to be evident.

III. At the three censuses of 1885, 1890, and 1895, the proportion of the married among the natives is less than one-third, while the proportion among the foreign born exceeds one-half. An elimination of the persons not adult raises the proportion of the native men to three-fifths,

that of the foreign men to nearly two-thirds, while that of the native women reaches six-thirteenths, and that of the foreign born seven-thirteenths. An investigation of the different age groups in 1895 shows that the excess of the married among the foreign born is for both sexes still larger in the fruitful periods of life, while the percentage of the married persons among the natives is higher in the oldest age groups. The proportion of the married among the total population, as well as among the adults, decreased for both sexes of natives from census to census. The foreign born do not show a decided change in either direction. For both sexes the proportion of married decreased from 1885 to 1890, and increased from 1890 to 1895.

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